EXHIBIT 'B'

PLACEWARE'S PROPOSED CONSTRUCTION OF DISPUTED CLAIM TERMS AND PHRASES, WITH SUPPORTING EVIDENCE IDENTIFIED IN ITS ENTIRETY

(U.S. PATENT NO. 6,343,313)

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Conferencing System	The preamble is not limiting, so this term need not be construed; alternatively, "conferencing system" is defined by the claim terms.	Abstract: "An improved networked computer communications system . . . " Col. 1:9-11: "The present invention relates generally to the field of shared computer communications and computer conferencing." Col. 1:49-50: "An improved general purpose data-stream computer network transport system . . ." Claim 1, col. 35:30-51.

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Shared portion of a display	Anything the presenter client can have displayed on its screen or a portion thereof.	col. 2:35-36: "The captured region can be anything the presenter client can have displayed on its screen or a portion thereof . . ." Col 10: 46-48: "The presenter selects an area of his or her computer display to be shared ("capture region"); it need not be a rectangular area." share: 1. a part or portion belonging to, distributed to, contributed by, or owed by a person or group. Webster's II New College Dictionary (1995). portion: 1. a part of a whole. Webster's II New College Dictionary (1995). display: the visual output device of a computer . . . Microsoft Computer Dictionary (3d ed. 1997).

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Updates said version of said shared portion of said display with data updates	This phrase need not be construed because the proper phrase to be construed is "data updates," below. If, however, the phrase must be construed, it should be as follows: The conference server generates and transmits more current data in one or more blocks of the shared portion of the display.	See evidence supporting "data updates" and "capable of delivering the data updates in an output type selected from . . ."

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Data updates	More current data in one or more blocks of the shared portion of the display.	update: to change a system or a data file to make it more current. Microsoft Computer Dictionary (3d ed. 1997). Throughout the patent specification, reference is made to subdividing the shared portion of the display into blocks to reduce the amount of data sent in a data update; accordingly, the updates themselves may address only one or more of the blocks of the shared portion of the display. E.g., Figures 4A, 4B, 4C, 4D, and 4E, and descriptive text at Col. 4:59-5:13; col. 12:28-13:18. col. 7: 35-43: "During a conferencing session, presenter client 12 takes periodic 'snap-shots' of the application screen image contained within a rectangular boundary determined by the presenter, breaks the screen shot into smaller rectangular blocks, compares these blocks to information from a previous screen shot. A block that has changed is passed to conference server 14 after it has undergone possibly two transformations and received identification marking ('ID stamps')." col. 7:66-8:1: "The changed blocks, however transformed, with ID stamps, are held on the conference server until they have been sent to all attendee client computers 18 . . . ." col. 12:17-22: "Updates for the capture rectangle may be requested by the server, or sent at fixed or variable times announced by the presenter client automatically or as determined by the presenter, or sent at the command of the presenter. The blocks sent out by the presenter client are just

		the blocks which have changed since the last update." col. 12:34-44: "FIG: 4A illustrates this point. In that figure, the captured images used are divided into twelve subblocks so that unchanged portions of the captured image can be ignored. If the block labeled 'B6' is the block being sent, block B6 of the current copy of the capatured [sic] image 69(a) is compared with block B6 of the most recently stored reference copy 69(b) of the captured image (the reference copy is a copy of how the captured image looked at some point in the past). The result of the comparison will determine whether block B6 has changed. If it hasn't, then there is no need to transmit the changes." col. 12:63-67: "FIG. 4D shows the transmission to the server of a base block when the comparison shows a change. The block is also sent to the stored image; this allows the stored image to be updated at the same time the changes are sent to the server." col. 13:1-2: "FIG. 4E shows the corresponding situation when a delta block is sent." col. 14:17-38: "If the presenter client decides to proceed, the state changes to the BLOCK-GRAB state, where the current capture rectangle or a portion of it is grabbed from display memory. A copy of the next most recent capture rectangle is maintained so that delta blocks can be easily generated. In this state, the delta blocks are generated if they are to be used. If the delta blocks indicate that nothing has changed, the computer transitions back to the IDLE state and does not send out the captured block or its delta (which would be blank). Otherwise, the client prepares the blocks which have changed for potential

		transmission. The capture rectangle is divided into blocks as described above. In the BLOCK-GRAB state, the presenter client estimates the amount of work required to prepare the grabbed blocks for transmission to the server, the attendee requirements, and local hardware capabilities. If the presenter client can perform work such as transcoding much faster than the attendee clients, or even the server, then the presenter client performs that step by transitioning to the COMPRESS/TRANSCODE state. The presenter client might skip this state altogether if no transcoding is to be done and compression is not used (such as where the network connection between the presenter client and the server is much faster than the compression speed of the presenter client)." "Either way, the presenter client then transitions to the NETWORK state, where it determines if the capture rectangle still needs to be sent and checks current network bandwidth. Then, the presenter client transitions to the OUTPUT state where the blocks are output, either as base blocks or as delta blocks, either compressed or uncompressed. The presenter client then returns to the IDLE state where the process repeats after a time." The data updates from the conference server are whatever blocks the presenter has sent to the conference server. See Figure 8A. col. 19:5-6: "Generally, a data stream arrives at the server from a presenter client and is routed to each of the attendee clients." col. 19:28: "As each data block is received, it is time stamped .

		. .” col. 19:34-35: “The data block is then fed to a server queue for that type of data block.”

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Taking into consideration	Construed in context below.	See evidence supporting construction in context below.

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Network connection speeds	Rates at which the network connections are able to transfer data.	network: a group of two or more computer systems linked together. Random House Computer & Internet Dictionary (3d ed. 1999). connect: 1. to join or fasten together. Webster's II New College Dictionary (1995). speed: 1. the rate or a measure of the rate of a motion . . . Webster's II New College Dictionary (1995). Col. 14: 1-3: **…** "the transmission rate of the presenter's network connection (no sense preparing a block update if the network can't handle it)," Col. 10:19-24. "The conference server acts as a software-controlled switch that connects the presenter client with the attendee clients, taking into account that the speed of information transfer from the presenter client can change and the speed of transfer to the attendee clients can change and be simultaneously different for different attendees." Col. 10:34-38: "In particular, this tuning dynamically matches the capture operation to the amount of computer power available (while running the other software the conferee may wish to use) and the speed of connection to the network." Col. 22:24-27: "The different output classes and the monitor processes on each data stream allow the server to handle data streams at different speeds for clients of different capabilities and network connections of different bandwidths."

		Col. 24:3-14: "It is possible to control the quality of storage input and playback output. Each storage stream can have an associated quality parameter associated with it so that it behaves as though connected at a particular network speed. Thus a stream might be stored or a playback stream might be produced that was suitable only for replay at a given speed. Or several playback streams could be simultaneously produced from the same stored information for several different particular playback rates. If most or all of the original session data is stored, then replay might perform the same adaptive filtering described in FIG. 8A for real-time "live" meetings, so that the single storage source could be played back at multiple, adaptive rates."

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Taking into consideration the network connections speeds and loads and client computing speeds and loads	Separately monitoring and basing a decision on each of the enumerated parameters.	consideration: 2. something to be considered in forming a judgment or decision. Webster's II New College Dictionary (1995). consider: 3. to believe after deliberation; judge. 4. to take into account. 7. to look at thoughtfully. Webster's II New College Dictionary (1995). and: 1. together or along with. Webster's II New College Dictionary (1995). Col. 4:30-44: "Existing systems do not provide one or more of the following, which are explained in greater detail below: multi-speed at server and client, multiple reconfigurable coder-decoder tranformations and transcodings, storage services (for, e.g., caching, failure recovery, recording, archiving, and playback), keyed access and privilege granting, adaptable servers and clients, multiple servers, adaptive and redundant server-to-server routing, load sharing among clients and servers, adaptive server-to-client matching, client/server and server/server backup and reconnection, multiple protocols for client connections, dynamic reconfiguration of server functions, and scaling beyond single process, host, or network limitations automatically or upon request." col. 18:27-31: "The server accepts system information from each client connection and notes the client's requirements (e.g., all images must be 256-color images) and capabilities (e.g., CPU speed, available hardware-assist for graphics, compression, DSP, Windows® DDB available)."

		col. 31:7-11: "Server managers are responsible for measuring network connection bandwidth, reliability, CPU load, and other parameters, and determining the configuration of any and all CSSs they may own at any given time based on these measurements and other considerations." Applicant repeatedly distinguished Shaw on the grounds that not all of the enumerated parameters were monitored and evaluated. Amendment, 1-4-2000, p.7: "It is not disclosed anywhere in Shaw that such apparatus is also capable of monitoring the client's speeds and loads. The invention disclosed by the present application, on the other hand, clearly monitors the speeds and loads of a client to determine the update rate of the shared display." Amendment, 1-4-2000, p. 8: "For example, Shaw does not disclose that the dropping of certain elements of the data streams is dependent on the client load and speed. . . . In Shaw, the decision on which compression method should be used is made solely based on the type of multimedia device that is acting as the client and the network bandwidth, without regard to the load and speed at the client. . . . ¶ . . . First, while Shaw discloses the use of compressed and differenced data, the use of client computing load and speed in data type selection is not mentioned." Amendment, 1-4-2000, p. 9: "There is no mention [in Shaw] of any data type selection using client load and speed."

		Amendment, 1-4-2000, p. 11 "In Shaw, only the network bandwidth or network conditions are taken into account in determining which compression algorithm should be employed; the availability of other computing resources such as CPU speed, load, and display requirements are not considered." Applicant distinguished Tung on the ground that it did not monitor and evaluate all of the enumerated parameters. Amendment, 4-19-2001, p.4: "It may be true that the process of updating within a network can only occur as fast as the rate at which the network is able to accommodate, i.e., how fast an update is transmitted and received depends on the network connection. However, that is very different from determining when to send an update. Thus, it would not have been either necessary or obvious that a conference server controls the updating process by taking into consideration the network connection speeds and loads." Similarly, Choquier was distinguished for failing to monitor and evaluate all of the enumerated parameters. Amendment, 4-19-2001, p. 4: ". . . Choquier does not teach that the updating of the transaction is done based on CPU load and CPU index. . . There is no teaching or suggestion that an update transaction is selectively delivered to a server based on the server load. . . . Again, there is no teaching or suggestion in Choquier that the system as disclosed therein performs updating of data sets or display or that the update is done based on the client computing speeds and loads." Applicant asserted that the consideration of all of the enumerated parameters was a part of the novelty of the invention. Amendment, 4-19-2001, p.4: "(Hence, it would not

		have been obvious at the time the invention was made to have a conference server control delivery of updates to a client based on the network connection speeds and loads as well as the client computing speeds and loads.") Amendment, 4-19-2001, p. 5: "For example, neither Tung nor Choquier discloses a transcoder, a compression mechanism, and a decompression mechanism associated with a client, a conference server and a presenter, wherein the activation of the transcoder and the decompression mechanism associated with the client depends on the client computing speeds and loads, the activation of the transcoder, the compression mechanism and the decompression mechanism associated with the conference server depends on the conference server computing speeds and loads, and the activation of the transcoder and the compression mechanism associated with the presenter depends on the presenter computing speeds and loads." Claim 1 was allowed only after applicant agreed to an Examiner's Amendment adding the limitations of proposed claim 32. The Examiner's statement of reasons for allowance cited all of the limitations of claim 1 in his statement of novelty. Notice of Allowability, 8-13-2001, ¶¶ 2, 4 and 5. "Notice of Allowability, 8-13-2001, pp. 2-3: EXAMINER'S AMENDMENT. . . IN THE CLAIMS: 1. (FOUR TIMES AMENDED) A conferencing system comprising: at least one client; a conference server; network connections between the conference server and the at least one client, wherein the at least one client maintains a version of a

		shared portion of a display, wherein the conference server updates said version of said portion of said display with data updates, after taking into consideration the network connections speeds and loads and client computing speeds and loads, wherein the conference server is capable of delivering the data updates in an output data type selected from base uncompressed data, base compressed data, difference uncompressed data and differenced compressed data, and wherein the output data type is selected based on the network connections speeds and loads, conference server computing speeds and loads, and client computing speeds and loads, and wherein the conference server is capable of transmitting said shared portion of said display to two or more clients in parallel." Notice of Allowability, 8-13-2001, p. 4: "Reasons For Allowance 4. The following is an examiner's statement of reasons for allowance: Interpreted in view of the specification, Applicant's invention shows novelty in the use of a conferencing system comprising at least one client, a conference server. . . wherein the conference server updates said version of said shared portion of said display with data updates, after taking into consideration the network connections speeds and loads and client computing speeds and loads . . . and wherein the output data type is selected based on the network connections speeds and loads, conference server computing speeds and loads, and client computing speeds and loads, . . . as stated and argued by Applicant in paper 25, as well as the enabling portion of Applicant's specification (see pages 17, 18 and 27-30)."

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Capable of delivering the data updates in an output data type selected from . . .	Able to generate and transmit each of the enumerated output data types.	See Figure 8A. col. 18:63-66: "FIG. 8A is a block diagram showing the flow of data in the server processes 100 used to intelligently filter and route one of the input data streams among those that the system may be transporting." col. 19:38-45: "Since the presenter client provides data in only one data type . . . and the data type sent can change from time to time, filter 100 uses a queue filler 104 to fill all four queues using just the one data type provided by the presenter client." col. 19:48-20:19: "As shown in FIG. 8A, the data type which is received can just be routed directly to the queue for that data type. If the received data type is uncompressed, the corresponding compressed queue is filled by running the received data blocks through a compressor 106b (base data) or 106d (delta data). If the received data type is compressed, the corresponding uncompressed queue is filled by running the received data blocks through a uncompressor 108b or 108d. If the received data type is base data, delta blocks are generated by a delta block generator 110, which records a previous base block and differences it with a current base block; it may also reference delta blocks that it creates and stores. Delta block generator 110 is coupled to the ubase stream after uncompressor 108b so that delta block generator 110 receives the base data whether it is sent as ubase data or cbase data. Likewise, delta block generator 110 is coupled to the udiff stream before compressor 106d so that both qudiff and qcdiff receive the benefit of delta block generator 110."

		"For processing in the other direction, i.e., filling the base data queues having only delta data, queue filler 104 includes a compositor 112. Compositor 112 gets its inputs from a base image frame store 114, the udiff stream and the cdiff stream (after being uncompressed by uncompressor 108d or a separate uncompressor 116). Base image frame store 114 maintains the equivalent of the previous full base frame. As delta frames are received, they are differenced (or, more precisely, "undifferenced") with the contents of base frame image store 114 to generate uncompressed base data. Because the output of compositor 112 is coupled to the ubase stream prior to compressor 106b, the base frames output by compositor 112 can be used to fill the qcbase queue as well as the qubase queue. If the presenter client can switch from base data streaming to delta data streaming without sending an initial snapshot frame as delta data, compositor 112 should be coupled to the ubase stream and the cbase stream (or the output of uncompressor 108b). Of course, the delta queues might contain base data from time to time, such as when a "checkpoint" is done to prevent an error in delta data from being propagated indefinitely." Col. 4:30-44: "Existing systems do not provide one or more of the following, which are explained in greater detail below: multi-speed at server and client, multiple reconfigurable coder-decoder tranformations and transcodings, storage services (for, e.g., caching, failure recovery, recording, archiving, and playback), keyed access and privilege granting, adaptable servers and clients, multiple servers, adaptive and redundant server-to-server routing, load sharing among clients and servers, adaptive server-to-client matching, client/server and

		server/server backup and reconnection, multiple protocols for client connections, dynamic reconfiguration of server functions, and scaling beyond single process, host, or network limitations automatically or upon request." capable: having ability or capacity. Webster's II New College Dictionary (1995). delivery: 5. the act of transferring to another. Webster's II New College Dictionary (1995).

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Base uncompressed data	An output data type that represents the full information of the blocks of the data update, with no transformation.	col. 12:24-26: "Depending on several factors detailed below, the presenter client might send the blocks as difference (delta) blocks as opposed to the full information base blocks." col. 7:43-48: "The first transformation may form the difference, using a set difference, exclusive-or (XOR), or other difference method, of the new and old block in order to extract information on the changes only. The second transformation may compress the block using a publicly available compression algorithm…" col. 14:17-18: "The capture rectangle is divided into blocks as described above." col. 14:34-37: "Then, the presenter client transitions to the OUTPUT state where the blocks are output, either as base blocks or as delta blocks, either compressed or uncompressed." col. 19:18-27: "The data can arrive as uncompressed base blocks (raw data) on the stream labeled 'ubase' if the presenter client decides not to send the differences and decides not to compress the data. If the presenter client decides, based on performance, network bandwidth, etc., to compress the data, it sends the data stream as compressed base blocks ('cbase'). The presenter client can also send the data stream as uncompressed difference (delta) blocks ('udiff') or as compressed delta blocks ('cdiff')."

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Base compressed data	An output data type that represents the full information of the blocks of the data update that has been transformed to a reduced size.	compress: to reduce the size of a set of data, such as a file or a communications message, so that it can be stored in less space or transmitted with less bandwidth. Microsoft Computing Dictionary (3d ed. 1997). col. 7:43-48: "The first transformation may form the difference, using a set difference, exclusive-or (XOR), or other difference method, of the new and old block in order to extract information on the changes only. The second transformation may compress the block using a publicly available compression algorithm…" col. 12:24-26: "Depending on several factors detailed below, the presenter client might send the blocks as difference (delta) blocks as opposed to the full information base blocks." Col. 12: 28-32: "For efficiency, the presenter client might only send out delta blocks for areas that have changed, since delta blocks will often compress smaller than the corresponding base block because much of the base block may remain unchanged." col. 14:17-18: "The capture rectangle is divided into blocks as described above." col. 14:34-37: "Then, the presenter client transitions to the OUTPUT state where the blocks are output, either as base blocks or as delta blocks, either compressed or uncompressed." col. 15:45-49: "When a change in a block is detected, the resulting changed block (base or delta) may be compressed,

		making use of any special hardware…if it is available on the client computer." col. 19:18-27: "The data can arrive as uncompressed base blocks (raw data) on the stream labeled 'ubase' if the presenter client decides not to send the differences and decides not to compress the data. If the presenter client decides, based on performance, network bandwidth, etc., to compress the data, it sends the data stream as compressed base blocks ('cbase'). The presenter client can also send the data stream as uncompressed difference (delta) blocks ('udiff') or as compressed delta blocks ('cdiff')."

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Differenced uncompressed data	An output data type that represents only changes to the blocks of the data update with no further transformation.	difference: 2a. an instance of disparity or unlikeness…2c. a specific point or element constituting a difference. Webster's II New College Dictionary (1995). See Figure 4E and descriptive text at col. 5:11-14 and col. 13:1-2. Compare Figure 4D and descriptive text at col. 5:6-9, col. 12:63-67. col. 10:8-11: "The blocks may be held at the server as full images, as differences ('deltas') from previously received full images, as deltas from previous delta blocks, or as some combination of these . . ." col. 12:24-26: "Depending on several factors detailed below, the presenter client might send the blocks as difference (delta) blocks as opposed to the full information base blocks." Col. 12: 28-32: "For efficiency, the presenter client might only send out delta blocks for areas that have changed, since delta blocks will often compress smaller than the corresponding base block because much of the base block may remain unchanged." col. 7:43-48: "The first transformation may form the difference, using a set difference, exclusive-or (XOR), or other difference method, of the new and old block, in order to extract information on the changes only. The second transformation may compress the block using a publicly available compression algorithm..." col. 14:17-18: "The capture rectangle is divided into blocks as

		described above." col. 14:34-37: "Then, the presenter client transitions to the OUTPUT state where the blocks are output, either as base blocks or as delta blocks, either compressed or uncompressed." Col. 15:45-46: "When a change in a block is detected, the resulting block (base or delta) may be compressed . . ." col. 19:18-27: "The data can arrive as uncompressed base blocks (raw data) on the stream labeled 'ubase' if the presenter client decides not to send the differences and decides not to compress the data. If the presenter client decides, based on performance, network bandwidth, etc., to compress the data, it sends the data stream as compressed base blocks ('cbase'). The presenter client can also send the data stream as uncompressed difference (delta) blocks ('udiff') or as compressed delta blocks ('cdiff')."

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Differenced compressed data	An output data type that represents only changes to the blocks of the data update that has been transformed to a reduced size.	difference: 2a. an instance of disparity or unlikeness…2c. a specific point or element constituting a difference. Webster's II New College Dictionary (1995). compress: to reduce the size of a set of data, such as a file or a communications message, so that it can be stored in less space or transmitted with less bandwidth. Microsoft Computing Dictionary (3d ed. 1997). See evidence supporting "differenced uncompressed data." col. 7:43-48: "The first transformation may form the difference, using a set difference, exclusive-or (XOR), or other difference method, of the new and old block in order to extract information on the changes only. The second transformation may compress the block using a publicly available compression algorithm..." col. 12:24-26: "Depending on several factors detailed below, the presenter client might send the blocks as difference (delta) blocks as opposed to the full information base blocks." col. 14:17-18: "The capture rectangle is divided into blocks as described above." col. 14:34-37: "Then, the presenter client transitions to the OUTPUT state where the blocks are output, either as base blocks or as delta blocks, either compressed or uncompressed." col. 15:45-49: "When a change in a block is detected, the

		resulting changed block (base or delta) may be compressed, making use of any special hardware…if it is available on the client computer." col. 19:18-27: "The data can arrive as uncompressed base blocks (raw data) on the stream labeled 'ubase' if the presenter client decides not to send the differences and decides not to compress the data. If the presenter client decides, based on performance, network bandwidth, etc., to compress the data, it sends the data stream as compressed base blocks ('cbase'). The presenter client can also send the data stream as uncompressed difference (delta) blocks ('udiff') or as compressed delta blocks ('cdiff')."

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Output data type selected from base uncompressed data, base compressed data, differenced uncompressed data and differenced compressed data	The output data types the conference server is capable of delivering include each of base uncompressed data, base compressed data, differenced uncompressed data and differenced compressed data.	output: the results of processing…sent to another computer in a network. Microsoft Computing Dictionary (3d ed. 1997). data type: in programming, a definition of a set of data that specifies the possible range of values of the set, the operations that can be performed on the values, and the way in which values are stored in memory. Microsoft Computing Dictionary (3d ed. 1997). Figures 8A, 9D, 9E, 9F, and descriptions thereof at col. 5:26-29; 9:48-63; 18:63-22:66; 27:25-28:33. col. 18:63-66: "FIG. 8A is a block diagram showing the flow of data in the server processes 100 used to intelligently filter and route one of the input data streams among those that the system may be transporting." col. 19:15-27: "The presenter client can dynamically change the format in which it provides data, based on the presenter client computer's capabilities, backlog, local network congestion, and information provided by the server. The data can arrive as uncompressed base blocks (raw data) on the stream labeled "ubase" if the presenter client decides not to send the differences and decides not to compress the data. If the presenter client decides, based on performance, network bandwidth, etc., to compress the data, it sends the data stream as compressed base clocks ('cbase'). The presenter client can also send the data stream as uncompressed difference (delta) blocks ('udiff') or as compressed delta blocks ('cdiff')."

		select: to pick out from among several: choose. Webster's II New College Dictionary (1995). and: 1. together or along with . . . Webster's II New College Dictionary (1995). col. 19:38-45: "Since the presenter client provides data in only one data type . . . and the data type sent can change from time to time, filter 100 uses a queue filler 104 to fill all four queues using just the one data type provided by the presenter client." col. 19:48-20:19: "As shown in FIG. 8A, the data type which is received can just be routed directly to the queue for that data type. If the received data type is uncompressed, the corresponding compressed queue is filled by running the received data blocks through a compressor 106b (base data) or 106d (delta data). If the received data type is compressed, the corresponding uncompressed queue is filled by running the received data blocks through a uncompressor 108b or 108d. If the received data type is base data, delta blocks are generated by a delta block generator 110, which records a previous base block and differences it with a current base block; it may also reference delta blocks that it creates and stores. Delta block generator 110 is coupled to the ubase stream after uncompressor 108b so that delta block generator 110 receives the base data whether it is sent as ubase data or cbase data. Likewise, delta block generator 110 is coupled to the udiff stream before compressor 106d so that both qudiff and qcdiff receive the benefit of delta block generator 110." "For processing in the other direction, i.e., filling the base data queues having only delta data, queue filler 104 includes a

		compositor 112. Compositor 112 gets its inputs from a base image frame store 114, the udiff stream and the cdiff stream (after being uncompressed by uncompressor 108d or a separate uncompressor 116). Base image frame store 114 maintains the equivalent of the previous full base frame. As delta frames are received, they are differenced (or, more precisely, "undifferenced") with the contents of base frame image store 114 to generate uncompressed base data. Because the output of compositor 112 is coupled to the ubase stream prior to compressor 106b, the base frames output by compositor 112 can be used to fill the qcbase queue as well as the qubase queue. If the presenter client can switch from base data streaming to delta data streaming without sending an initial snapshot frame as delta data, compositor 112 should be coupled to the ubase stream and the cbase stream (or the output of uncompressor 108b). Of course, the delta queues might contain base data from time to time, such as when a "checkpoint" is done to prevent an error in delta data from being propagated indefinitely." col. 14:45-46: "In general, the presenter client sends out a stream or streams, which can vary in format over time."

Disputed Claim Term, Phrase or clause	PlaceWare's Preliminary Proposed Constructions	PlaceWare's Supporting Evidence
Selected based on the network connections speeds and loads, conference server computing speeds and loads, and client computing speeds and loads	Chosen as a result of separately considering each of the following: the network connections speeds and loads, conference server computing speeds and loads, and client computing speeds and loads	speed: 1. the rate or a measure of the rate of motion . . . Webster's II New College Dictionary (1995). load: 1. the total computing burden a system carries at one time. Microsoft Computer Dictionary (3d ed. 1997). computer: one that computes, esp. a high-speed electronic device that processes, retrieves, and stores programmed information. Webster's II New College Dictionary (1995). select: to pick out from among several: choose. Webster's II New College Dictionary (1995). base: 5. the fact, observation, or premise from which a reasoning process is begun Webster's II New College Dictionary (1995). and: 1. together or along with . . . Webster's II New College Dictionary (1995). Col. 4:30-44: "Existing systems do not provide one or more of the following, which are explained in greater detail below: multi-speed at server and client, multiple reconfigurable coder-decoder tranformations and transcodings, storage services (for, e.g., caching, failure recovery, recording, archiving, and playback), keyed access and privilege granting, adaptable servers and clients, multiple servers, adaptive and redundant server-to-server routing, load sharing among clients and servers, adaptive server-to-client matching, client/server and server/server backup and reconnection, multiple protocols for client connections, dynamic reconfiguration of server functions,

		and scaling beyond single process, host, or network limitations automatically or upon request." col. 18:27-39: "The server accepts system information from each client connection and notes the client's requirements (e.g., all images must be 256-color images) and capabilities (e.g., CPU speed, available hardware-assist for graphics, compression, DSP, Windows® DDB available). From the system information, the server assigns the client connection to an appropriate 'output filter class' as explained below. During network communication with a client, the server may measure the network response and update the system information. As required, the server can move a client connection from class to class in response to changing network characteristics so as to keep the clients in a class closely matched." col. 31:7-11: "Server managers are responsible for measuring network connection bandwidth, reliability, CPU load, and other parameters, and determining the configuration of any and all CSSs they may own at any given time based on these measurements and other considerations." Applicant repeatedly distinguished Shaw on the grounds that not all of the enumerated parameters were monitored and evaluated. Amendment, 1-4-2000, p.7: "It is not disclosed anywhere in Shaw that such apparatus is also capable of monitoring the client's speeds and loads. The invention disclosed by the present application, on the other hand, clearly monitors the speeds and loads of a client to determine the update rate of the shared display."

		Amendment, 1-4-2000, p. 8 "For example, Shaw does not disclose that the dropping of certain elements of the data streams is dependent on the client load and speed. . . . In Shaw, the decision on which compression method should be used is made solely based on the type of multimedia device that is acting as the client and the network bandwidth, without regard to the load and speed at the client. . . . ¶ . . . First, while Shaw discloses the use of compressed and differenced data, the use of client computing load and speed in data type selection is not mentioned." Amendment, 1-4-2000, p. 9: "There is no mention [in Shaw] of any data type selection using client load and speed." Amendment, 1-4-2000, p. 11: "In Shaw, only the network bandwidth or network conditions are taken into account in determining which compression algorithm should be employed; the availability of other computing resources such as CPU speed, load, and display requirements are not considered." Applicant distinguished Tung on the ground that it did not monitor and evaluate all of the enumerated parameters. Amendment, 4-19-2001, p.4: "It may be true that the process of updating within a network can only occur as fast as the rate at which the network is able to accommodate, i.e., how fast an update is transmitted and received depends on the network connection. However, that is very different from determining when to send an update. Thus, it would not have been either necessary or obvious that a conference server controls the updating process by taking into consideration the network connection speeds and loads."

		Similarly, Choquier was distinguished for failing to monitor and evaluate all of the enumerated parameters. Amendment, 4-19-2001, p. 4: ". . . Choquier does not teach that the updating of the transaction is done based on CPU load and CPU index. . . There is no teaching or suggestion that an update transaction is selectively delivered to a server based on the server load. . . . Again, there is no teaching or suggestion in Choquier that the system as disclosed therein performs updating of data sets or display or that the update is done based on the client computing speeds and loads." Applicant asserted that the consideration of all of the enumerated parameters was a part of the novelty of the invention. Amendment, 4-19-2001, p.4: "(Hence, it would not have been obvious at the time the invention was made to have a conference server control delivery of updates to a client based on the network connection speeds and loads as well as the client computing speeds and loads.)" Amendment, 4-19-2001, p. 5: "For example, neither Tung nor Choquier discloses a transcoder, a compression mechanism, and a decompression mechanism associated with a client, a conference server and a presenter, wherein the activation of the transcoder and the decompression mechanism associated with the client depends on the client computing speeds and loads, the activation of the transcoder, the compression mechanism and the decompression mechanism associated with the conference server depends on the conference server computing speeds and loads, and the activation of the transcoder and the compression mechanism associated with the presenter depends on the presenter computing speeds and loads."

		Claim 1 was allowed only after applicant agreed to an Examiner's amendment adding the limitations of proposed claim 32. The Examiner's statement of reasons for allowance cited all of the limitations of claim 1 in his statement of novelty. Notice of Allowability, 8-13-2001, ¶¶ 2, 4 and 5.